

Insight 7

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The Diet Quality of Americans: Strong Link With Nutrition Knowledge

Mark Lino¹
P. Peter Basiotis¹
Rajen S. Anand¹
Jayachandran N. Variyam²

The recently released report, *The Healthy Eating Index: 1994-96*, reveals that although Americans' overall diet quality has improved slightly in the last decade, it still needs much improvement. The Healthy Eating Index (HEI) is a summary measure of people's overall diet quality. It is computed on a regular basis by the U.S. Department of Agriculture's Center for Nutrition Policy and Promotion (CNPP). The most recent HEI is for 1996—the latest year for which national data are available. These data are from USDA's 1996 Continuing Survey of Food Intakes by Individuals, a nationally representative survey containing information on food consumption and nutrient intake. This *Nutrition Insight* presents the 1996 HEI for the U.S. population age 2 and over.

How the Healthy Eating Index Is Computed

The Healthy Eating Index consists of 10 components, each representing different contributions to a healthful diet: Components 1-5 measure the degree to which a person's diet conforms to the USDA's Food Guide Pyramid serving recommendations for the five major food groups: Grains (bread, cereal, rice, and pasta), vegetables, fruits, milk (milk, yogurt, and cheese), and meat (meat, poultry, fish, dry beans, eggs, and nuts). Component 6 measures total fat consumption

as a percentage of total food energy (calorie) intake. Component 7 measures saturated fat consumption as a percentage of total food energy intake. Components 8 and 9 measure total cholesterol intake and total sodium intake, respectively. And component 10 measures the degree of variety in a person's diet.

Each component of the Index has a maximum score of 10 and a minimum score of zero. Intermediate scores are computed proportionately. High component scores indicate intakes close to recommended ranges or amounts; low component scores indicate less compliance with recommended ranges or amounts. The maximum combined score for the 10 components is 100. An HEI score above 80 implies a "good" diet, an HEI score between 51 and 80 implies a diet that "needs improvement," and an HEI score less than 51 implies a "poor" diet.

Healthy Eating Index Scores

The 1996 average HEI score for the U.S. population is 64. The diet of most people (71 percent) is in the "needs improvement" range (fig. 1). Approximately 12 percent of the population have a good diet, and 17 percent have a poor diet. Most people meet the dietary recommendation for cholesterol on a given day; the average cholesterol score

¹Center for Nutrition Policy and Promotion, U.S. Department of Agriculture.

²Economic Research Service, U.S. Department of

is 7.9 on a scale of zero to 10 (table). With an average score of 7.6, the variety score is the second best, indicating that people are heeding the message to eat a variety of foods.

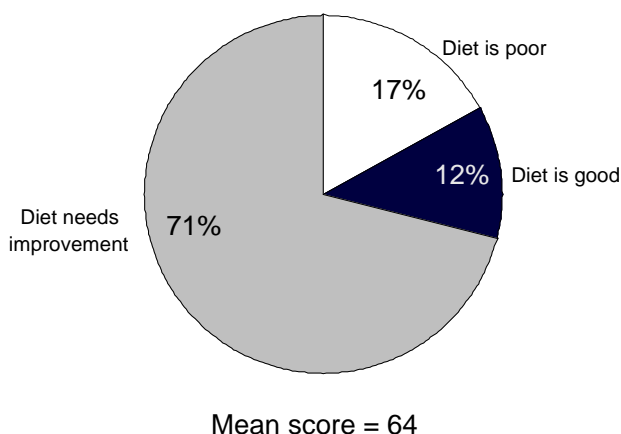
People score lowest on the fruits component of the HEI (3.8) and the milk component (5.4). Only 17 percent of people meet the dietary recommendation for fruits, and 26 percent meet the dietary recommendation for milk products on a given day. For the other HEI components, average scores are between 6 and 7 for the population. For all HEI components, with the exception of cholesterol and variety, fewer than 50 percent of people meet the dietary recommendations.

Healthy Eating Index Scores by Selected Characteristics

HEI scores vary by the demographic and socioeconomic characteristics of people. Females have an average HEI score two points higher than that of males (65 vs. 63). Children age 2 to 3 have the highest HEI score (73) among all age/gender groups, and as children age, their HEI score declines. By age 15 to 18, children's HEI scores average 60 (males) and 63 (females).

The HEI scores generally increase as level of education and level of income rise. People with household income 50 percent of the poverty threshold or below have an average HEI score of 61. By comparison, people with household income over three times the poverty threshold have an average HEI score of 65. Asian/Pacific Islander Americans have the highest average HEI score (68) among all racial groups, followed by Whites, with a score of 64, and African Americans, with a score of 59. By region,

Figure 1. Healthy Eating Index rating and mean score, 1996



Healthy Eating Index components: Mean scores and percent meeting the dietary recommendations, 1996

	Component	Mean	Percent
1.	Grains	6.7	22
2.	Vegetables	6.3	32
3.	Fruits	3.8	17
4.	Milk	5.4	26
5.	Meat	6.4	26
6.	Total fat	6.9	38
7.	Saturated fat	6.4	40
8.	Cholesterol	7.9	72
9.	Sodium	6.3	35
10.	Variety	7.6	53

people who live in the Northeast have the highest HEI score (66), and those who live in the South have the lowest HEI score (61). An earlier report indicates that nutrition information can play a key role in improving dietary patterns and that it is partly responsible for these observed differences in HEI scores (box).

How Has the Healthy Eating Index Changed Over Time?

The HEI was first calculated for 1989. Since then, the diet of Americans has slightly, but significantly, improved. However, people's diets need further improvement. In 1989, the average HEI score for all people was 62, compared

Diet Quality and Nutrition Knowledge: A Strong Link

Women generally have a more healthful diet than men have. Older people generally have more healthful diets than do younger people. Those with more schooling generally have more healthful diets than those with less schooling have. Why? The report¹ *USDA's Healthy Eating Index and Nutrition Information*, published by USDA's Economic Research Service in collaboration with USDA's Center for Nutrition Policy and Promotion, finds that one reason for these dietary differences is that people with more healthful diets generally have a greater store of nutrition information and are more aware of the links between poor diet and certain diseases.

The report documents the influence on diet of socioeconomic characteristics, nutrition knowledge, and awareness of diet-disease relationships. For two individuals similar in most respects, the one scoring one point higher on a nutrition knowledge scale also scored four to five points higher on the Healthy Eating Index scale. Individuals with higher income or education tend to acquire more nutrition information and knowledge that, in turn, improves the quality of their diets. Informational differences also help explain the effects of gender, race, ethnicity, and income on diet quality. For example, women tend to have a higher stock of nutrition information than men have, and this is reflected in women's higher HEI scores.

These findings clearly illustrate the importance of nutrition education as a tool to help improve people's overall diets.

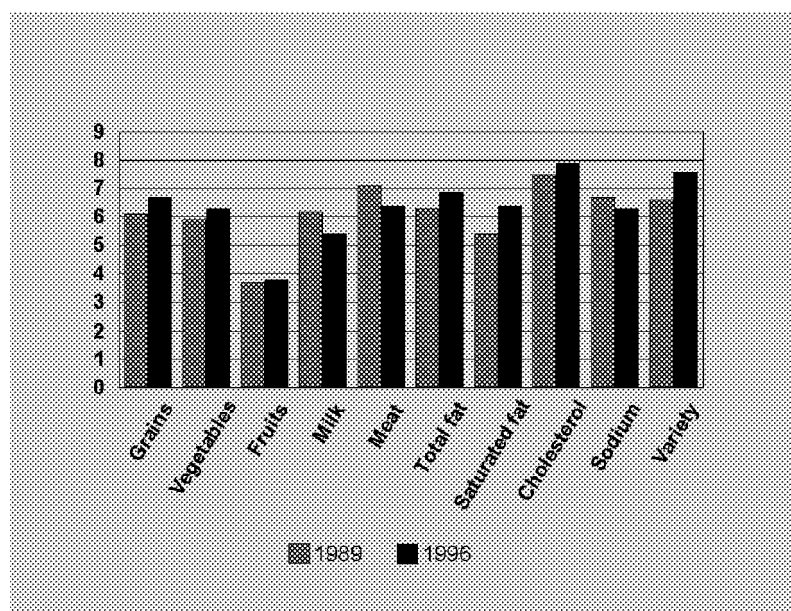
¹Variyam, J.N., Blaylock, J., Smallwood, D. and Basiotis, P.P. April 1998. *USDA's Healthy Eating Index and Nutrition Information*. Food and Rural Economics Division, Economic Research Service, and Center for Nutrition Policy and Promotion, USDA. Technical Bulletin No. 1866. Available at <http://www.econ.ag.gov/epubs/pdf/tb1866/>.

with 64 in 1996. Between 1989 and 1996, the Federal Government introduced nutrition education initiatives, such as the Food Guide Pyramid and the Nutrition Labeling and Education Act, which may have contributed to this improvement. Scores increased for all HEI components from 1989 to 1996, except for milk, meat, and sodium (fig. 2). Scores improved the most for the saturated fat and variety components of the Index.

Summary

Most people have a diet that needs improvement. Americans especially need to improve their fruit and milk products consumption. Certain segments of the population (African Americans, teenagers, and people with low household income) tend to have lower quality diets. Nutrition educators can use these results in providing guidance and better targeting of nutrition programs to specific audiences.

Figure 2. Healthy Eating Index: Mean component scores, 1989 vs. 1996



Note: For additional results and more details on the Healthy Eating Index and how it is computed, the reader should see Bowman, S.A., Lino, M., Gerrior, S.A., Basiotis, P.P. 1998. *The Healthy Eating Index: 1994-96*. U.S. Department of Agriculture, Center for Nutrition Policy and Promotion. CNPP-5. Available at <http://www.usda.gov/cnpp>.